	B	C
1	**Source Description**	
2		
3	Phase I ID No.	463
4	EPA ID No.	MOD056389828
5	Facility Name	Miles, Inc.
6	Facility Location	
7	City	Kansas City
8	State	MO
9	Unit ID Name/No.	Miles thermal oxidizer
10	Other Sister Facilities	
11	Combustor Class	Onsite Incinerator
12	Combustor Type	Liquid injection
13	Combustor Characteristics	A pressurized, down-fired unit, has a single vertical combustion chamber. Designed to burn about 21 gp, of organic and aqueous liq wastes and 7800 scfm natural gas.
14		
15	Capacity (MMBtu/hr)	41
16	Soot Blowing	
17	APCS	SC/SP/Q/PB
18	APCS Characteristics	Venturi scrubber, SO2 scrubber, separator, quench, packed bed
19	Hazardous Wastes	Liq
20	Haz Waste Description	Aqueous and liq organic genearated from onsite processes
21	Supplemental Fuel	Natural gas and fuel oil
22		
23	Stack Characteristics	
24	Diameter (ft)	2.97
25	Height (ft)	23.4
26	Gas Velocity (ft/sec)	25.2
27	Gas Temperature (°F)	185
28		
29	Permitting Status	Tier I for all metals except As, Pb, Cr, Cd (tier III)
30	HWC Burn Status (Date if Terminated)	

	B	C
1	**Condition Description**	
2		
3	**463C1**	
4		
5	Report Name/Date	Trial Burn Sampling and Analysis Results for the Mobay Incinerator, Kansas City, MO, Final Report, MRI, November 1984
6	Report Prepare	Midwest Research Institute
7	Testing Firm	Midwest Research Institute
8	Cond Descr	?
9	Test Dates	Nov 13-14, 1984
10	Cond Date	11/13/84
11		
12	**463C10**	
13		
14	Report Name/Date	Trial Burn Report, February 1985
15	Report Prepare	Midwest Research Institute (MRI)
16	Testing Firm	Mobay Chemical Corporation
17	Testing Dates	November 13-14, 1984
18	Condition Descr	Trial burn, worst case, max temp, max feedrate
19	Content	PM, CO, HCl/Cl2, DRE
20		
21	**463C11**	
22		
23	Report Name/Date	Trial Burn Report, May 1986
24	Report Prepare	Midwest Research Institute (MRI)
25	Testing Firm	Mobay Chemical Corporation
26	Testing Dates	April 22, 1986
27	Condition Descr	Trial burn, low temp, max feedrate
28	Content	PM, CO, HCl/Cl2, DRE
29		
30	**463C12**	
31		
32	Report Name/Date	EPA OSW Sponsored Evaluation Testing, November 1988
33	Report Prepare	Midwest Research Institute (MRI)
34	Testing Firm	Mobay Chemical Corporation
35	Testing Dates	October 1, 1988
36	Condition Descr	EPA OSW Sponsored Evaluation Testing
37	Content	PM, CO, metals
38		
39	**463C13**	
40		
41	Report Name/Date	Metal Trial Burn Report, June 1994
42	Report Prepare	ENSR and B^3 System (spiking report)
43	Testing Firm	ENSR
44	Testing Dates	March 28-31, 1994
45	Condition Descr	Trial burn, worst case, max temp, max feedrate
46	Content	PM, CO, metals

	B	C	D	E	F	G	H	I	J	K	L	M
1	**Stack Gas Emissions**											
2												
3		Commer	Units	7% O2								
4												
5	**463C10**	**Trial Burn**				R1		R2		R3		Cond Avg
6												
7	PM		gr/dscf	y		0.0740		0.1250		0.1380		0.1188
8												
9	CO (RA)		ppmv	n		5900		5500		5600		
10												
11	HCl		g/min	n		17.00		14.00		14.00		
12	Cl2		g/min	n								
13												
14	POHC DRE	1,2-Dichloroethane										
15	POHC Feedrate		lb/hr			211.5		171.8		198.2		
16	Emission Rate		lb/hr			7.1E-05		3.4E-05		4.9E-05		
17	DRE		%			99.999966		99.99998		99.99998		
18												
19	POHC DRE	Tetrachloroethylene										
20	POHC Feedrate		lb/hr			224.7		185.0		198.2		
21	Emission Rate		lb/hr			2.8E-04		1.7E-03		1.9E-03		
22	DRE		%			99.9998		99.99907		99.99907		
23												
24	Sampling Train	PM, HCl/Cl2, DRE										
25	Stack Gas Flowrate		dscfm			9469.9647		9151.9435		9293.286		9302.1
26	O2		%			4.6		5.5		5.2		5.1
27	Moisture		%									
28	Temperature		°F									
29												
30	CO (RA)		ppmv	y		5036.59		4967.74		4962.03		4982.1
31												
32	HCl		ppmv	y		36.16		32.60		31.50		32.9406
33	Cl2		ppmv	y								
34	Total Chlorine		ppmv	y								#DIV/0!
35												
36	**463C11**	**Trial Burn**				R1		R2		R3		Cond Avg
37												
38	PM		gr/dscf	y		0.0648		0.0618		0.0453		0.0543
39												
40	CO (RA)		ppmv	n		2800		2750		2860		
41												
42	HCl		kg/hr	n		0.86		1.00		0.86		
43	Cl2		kg/hr	n								
44												
45	POHC DRE	1,2-Dichloroethane										
46	POHC Feedrate		lb/hr			211.5		171.8		198.2		
47	Emission Rate		lb/hr			7.1E-05		3.4E-05		4.9E-05		
48	DRE		%			99.999966		99.99998		99.99998		
49												
50	POHC DRE	Tetrachloroethylene										
51	POHC Feedrate		lb/hr			224.7		185.0		198.2		
52	Emission Rate		lb/hr			2.8E-04		1.7E-03		1.9E-03		
53	DRE		%			99.9998		99.99907		99.99907		
54												
55	Sampling Train	PM, HCl/Cl2, DRE										
56	Stack Gas Flowrate		dscfm			9226		9183		9160		9182.3
57	O2		%			5.8		5		4.8		5.1
58	Moisture		%									
59	Temperature		°F									
60												
61	CO (RA)		ppmv	y		2390.24		2483.87		2534.18		2485.6
62												
63	HCl		ppmv	y		30.49		38.81		32.25		33.45
64	Cl2		ppmv	y								
65	Total Chlorine		ppmv	y								#DIV/0!
66												
67	**463C12**	EPA OSW Sponsored testing				R1		R2		R3		Cond Avg
68												
69	PM		gr/dscf	y		0.0223		0.0199		0.0212		0.0212
70												
71	CO (RA)		ppmv	n		33		33		31		

	B	C	D	E	F	G	H	I	J	K	L	M
72												
73	Arsenic		mg/min	n		0.9		0.8		0.8		
74	Cadmium		mg/min	n		1.3		1.6		1.8		
75	Chromium		mg/min	n		2.10		4.30		3.90		
76	Lead		mg/min	n		1.30		1.20		0.70		
77												
78	Sampling Train	PM, metals										
79	Stack Gas Flowrate		dscfm			6964		7127		6986		7015.8
80	O2		%			4.2		5.8		5.2		5.1
81	Moisture		%			58.7		56.5		59.6		58.6
82	Temperature		°F			185		184		186		185.3
83												
84	CO (RA)		ppmv	y		27.50		30.39		27.47		28.2
85												
86	Arsenic		ug/dscm	y		3.81		3.65		3.59		3.7
87	Cadmium		ug/dscm	y		5.50		7.31		8.07		7.2
88	Chromium		ug/dscm	y		8.88		19.64		17.48		15.9
89	Lead		ug/dscm	y		5.50		5.48		3.14		4.3
90	SVM		ug/dscm	y		10.99		12.79		11.20		11.5
91	LVM		ug/dscm	y		12.69		23.29		21.06		19.5
92												
93												
94	**463C13**	**Trial Burn**				R1		R2		R3		Cond Avg
95												
96	CO (RA)		ppmv	n		73		83		80		
97												
98	Arsenic		ug/dscm	n		125.5		116.1		114		
99	Cadmium		ug/dscm	n		73.8		96.6		70.8		
100	Chromium		ug/dscm	n		531		750		636		
101	Lead		ug/dscm	n		8988		17843		17174		
102	Cr+6		ug/dscm	n		13		23		24		
103												
104	Sampling Train	Metals										
105	Stack Gas Flowrate		dscfm			6748		6563		6773		6714.3
106	O2		%			5.67		6.93		7.3		6.8
107	Moisture		%			56.2		58.3		58.5		57.9
108	Temperature		°F			184		189		185		185.8
109												
110	Sampling Train	Cr+6										
111	Stack Gas Flowrate		dscfm			7360		6788		6891		6982.5
112	O2		%			5.67		7.33		7.3		6.9
113	Moisture		%			52		57.2		57.9		56.3
114	Temperature		°F			189		192		186		188.3
115												
116	CO (RA)		ppmv	y		66.67		82.59		81.75		78.2
117												
118	Arsenic		ug/dscm	y		114.61		115.52		116.50		115.8
119	Cadmium		ug/dscm	y		67.40		96.12		72.35		77.1
120	Chromium		ug/dscm	y		484.93		746.27		649.93		632.8
121	Lead		ug/dscm	y		8208.22		17754.23		17550.07		15265.6
122	SVM		ug/dscm	y		8.28E+03		1.79E+04		1.76E+04		1.53E+04
123	LVM		ug/dscm	y		6.00E+02		8.62E+02		7.66E+02		7.49E+02

	B	C	D	E	F	G	H	I	J	K	L	M
1	**Stack Gas Emissions 2**											
2												
3	**463C1**					R1		R2		R3		Cond Avg
4												
5	PM		gr/dscf	y		0.0740		0.1250		0.1380		0.1123
6	CO		ppmv	y		5036.6		4967.7		4962.0		
7	HCl		ppmv	y		35.8		32.3		31.2		
8												
9	Sampling Train	Halogens										
10	Moisture					53.9		53.8		52.6		
11	Oxygen					4.6		5.5		5.2		
12	Stack gas flowrate					9474.0		9148.0		9282.0		
13	Temperature					181.0		181.0		180.0		
14												
15	1,2-dichloroethane	DRE	%			99.99997		99.99998		99.99998		
16	Tetrachloroethene	DRE	%			99.99988		99.99907		99.99907		

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1	**Feedstream 2**																									
2																										
3	**463C10**	**Trial burn**			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3	
4																										
5	Feedstream Description				Liq Organic		Liq Organic		Liq Organic		Liq Organic		Aqueous		Aqueous		Aqueous		Aqueous		Fuel Oil		Fuel Oil		Fuel Oil	
6	Feed Rate		gpm		5.8		5.6		5.6				14		14		14				0.8		0.5		0.5	
7	Thermal Feedrate		MM Btu/hr		47		39		40																	
8	Heating Value		Btu/lb		10950		10270		10480				1380		1150		1190				19330.0		19280.0		19240.0	
9	Density		g/ml		0.92		0.92		0.92				1.1		1.1		1.1				0.9		0.9		0.9	
10	Viscosity		SSU @ 100oF		30		29		30				28		29		28				34.0		35.0		35.0	
11	Ash		%	nd	0.1	nd	0.1	nd	0.1				8.3		8		8			nd	0.1	nd	0.1	nd	0.1	
12	Chlorine		%		15.1		15.2		15.7				4.1		3.9		3.9			nd	0.1	nd	0.1	nd	0.1	
13																										
14	Stack Gas Flowrate		dscfm		9469.96466		9151.9435		9293.28622		9302.1		9469.965		9151.943		9293.286		9302.1		9469.964664		9151.9435		9293.2862	
15	Oxygen		%		4.6		5.5		5.2		5.1		4.6		5.5		5.2		5.1		4.6		5.5		5.2	
16																										
17	Est Total Firing Rate		MMBtu/hr		29.27		26.50		27.04		27.60		10.64		8.87		9.18		9.56		6.66		4.15		4.14	
18																										
19	*Feedrate MTEC Calculations*																									
20	Ash		mg/dscm	nd	64.42	nd	68.09	nd	65.79		33.05		15430.76		16283.45		15731.32		15815.18	nd	8.31	nd	5.68	nd	5.49	
21	Chlorine		ug/dscm		9727055		10350355		10328326		10135245.0		7622425		7938183		7669018		7743208.71	nd	8306	nd	5683	nd	5491	
22																										
23	**463C11**	**Trial burn**			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3	
24																										
25	Feedstream Description				Liq Organic		Liq Organic		Liq Organic		Liq Organic		Aqueous		Aqueous		Aqueous		Aqueous		Fuel Oil		Fuel Oil		Fuel Oil	
26	Feed Rate		gpm																							
27	Thermal Feedrate		MM Btu/hr		36		41		41																	
28	Heating Value		Btu/lb		10129		11018		10887				1159		1227		1118				19454.0		19420.0		19422.0	
29	Density		g/ml		0.91		0.9		0.9				1.06		1.06		1.07				0.9		0.9		0.9	
30	Viscosity		SSU @ 100oF																							
31	Ash		%		0.05		0.06		0.04				3.6		3.7		3.9			nd	0.1	nd	0.1	nd	0.1	
32	Chlorine		%		12.1		12.3		12.2				0.1		0.1		0.1			nd	0.1	nd	0.1	nd	0.1	
33																										
34	Stack Gas Flowrate		dscfm		9226		9183		9160		9182.3		9226		9183		9160		9182.3		9226		9183		9160	
35	Oxygen		%		5.8		5		4.8		5.1		5.8		5		4.8		5.1		5.8		5		4.8	
36																										
37	Est Total Firing Rate		MMBtu/hr																							
38																										
39	*Feedrate MTEC Calculations*																									
40	Ash		mg/dscm		No feedrate																					
41	Chlorine		ug/dscm																							
42																										
43	**463C12**	**EPA OSW Evaluation**			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3	
44																										
45	Feedstream Description				Liq Organic		Liq Organic		Liq Organic		Liq Organic		Aqueous		Aqueous		Aqueous		Aqueous		Tempering Wate		Tempering Wa		Tempering Wa	
46	Feed Rate		kg/min		12		11		11				25		27		24				7.6		7.6		7.6	
47	Feed Rate		acfm																							
48	Thermal Feedrate		MM Btu/hr		28.8		31.9		29		29.90															
49	Heating Value		Btu/lb																							
50	Density		g/ml		0.97		0.97		0.97				1.04		1.04		1.04				1.0		1.0		1.0	
51	Viscosity		SSU @ 100oF																							
52	Ash		%		0.045		0.064		0.034				3.07		2.71		2.96									
53	Arsenic		mg/kg	nd	4.27	nd	4.11	nd	2.49				1.42		3.04		2.64			nd	0.000664	nd	0.000664	nd	0.000664	
54	Cadmium		mg/kg	nd	0.0291	nd	0.0279	nd	0.0264			nd	0.00172		0.0122	nd	0.00165				0.01		0.01		0.01	
55	Chromium		mg/kg		1.64		1.65		1.02				0.265		0.131		0.29				0.0308		0.0308		0.0308	
56	Lead		mg/kg	nd	1.04	nd	1	nd	0.945				0.446		0.167		0.293				0.0884		0.0884		0.0884	
57																										
58	Stack Gas Flowrate		dscfm		6964		7127		6986		7015.75		6964		7127		6986		7015.75		6964		7127		6986	
59	Oxygen		%		4.2		5.8		5.2		5.1		4.2		5.8		5.2		5.1		4.2		5.8		5.2	
60																										

	B	AB	AD	AF	AH	AJ	AL	AN	AP	AR	AT	AV	AX
1	**Feedstream 2**												
2													
3	**463C10**	Cond Avg	R1	R2	R3	Cond Avg							
4													
5	Feedstream Description	Fuel Oil	Total	Total	Total	Total							
6	Feed Rate												
7	Thermal Feedrate												
8	Heating Value												
9	Density												
10	Viscosity												
11	Ash												
12	Chlorine												
13													
14	Stack Gas Flowrate	9302.1											
15	Oxygen	5.1											
16													
17	Est Total Firing Rate	4.99	46.57	39.53	40.37	42.15							
18													
19	*Feedrate MTEC Calculations*												
20	Ash	3.25	15467.1	16320.3	15767.0	15851.5							
21	Chlorine	2315.45	17353633.2	18291379.3	18000088.5	17880769.2							
22													
23	**463C11**	Cond Avg	R1	R2	R3	Cond Avg							
24													
25	Feedstream Description	Fuel Oil	Total	Total	Total	Total							
26	Feed Rate												
27	Thermal Feedrate												
28	Heating Value												
29	Density												
30	Viscosity												
31	Ash												
32	Chlorine												
33													
34	Stack Gas Flowrate	9182.3											
35	Oxygen	5.1											
36													
37	Est Total Firing Rate												
38													
39	*Feedrate MTEC Calculations*												
40	Ash												
41	Chlorine												
42													
43	**463C12**	Cond Avg	R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg	R1	R2	R3
44													
45	Feedstream Description	Tempering Wate	Natural gas	Natural gas	Natural gas	Natural gas	Spike	Spike	Spike	Spike	Total	Total	Total
46	Feed Rate						0.05073	0.06155	0.06742				
47	Feed Rate		3270.0	5770.0	5910.0								
48	Thermal Feedrate										28.8	31.9	29.0
49	Heating Value												
50	Density												
51	Viscosity												
52	Ash												
53	Arsenic					nd	0.339 nd	0.311	0.632				
54	Cadmium						2200	1990	1710				
55	Chromium						5700	10500	4930				
56	Lead						759	735	523				
57													
58	Stack Gas Flowrate	7015.75					6964	7127	6986	7015.75			
59	Oxygen	5.1					4.2	5.8	5.2	5.1			
60													

	B	AZ
1	**Feedstream 2**	
2		
3	**463C10**	
4		
5	Feedstream Description	
6	Feed Rate	
7	Thermal Feedrate	
8	Heating Value	
9	Density	
10	Viscosity	
11	Ash	
12	Chlorine	
13		
14	Stack Gas Flowrate	
15	Oxygen	
16		
17	Est Total Firing Rate	
18		
19	*Feedrate MTEC Calculations*	
20	Ash	
21	Chlorine	
22		
23	**463C11**	
24		
25	Feedstream Description	
26	Feed Rate	
27	Thermal Feedrate	
28	Heating Value	
29	Density	
30	Viscosity	
31	Ash	
32	Chlorine	
33		
34	Stack Gas Flowrate	
35	Oxygen	
36		
37	Est Total Firing Rate	
38		
39	*Feedrate MTEC Calculations*	
40	Ash	
41	Chlorine	
42		
43	**463C12**	Cond Avg
44		
45	Feedstream Description	Total
46	Feed Rate	
47	Feed Rate	
48	Thermal Feedrate	29.9
49	Heating Value	
50	Density	
51	Viscosity	
52	Ash	
53	Arsenic	
54	Cadmium	
55	Chromium	
56	Lead	
57		
58	Stack Gas Flowrate	
59	Oxygen	
60		

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
61	Est Total Firing Rate		MMBtu/hr																							
62																										
63	*Feedrate MTEC Calculations*																									
64	Ash		mg/dscm		22.8		32.1		16.8		23.91		3245.28		3341.37		3183.90		3256.85							
65	Arsenic		ug/dscm	nd	216.7	nd	206.5	nd	122.8		90.98		150.1		374.8		284.0		269.63	nd	0.021	nd	0.023	nd	0.023	
66	Cadmium		ug/dscm	nd	1.5	nd	1.4	nd	1.3		0.70	nd	0.2		1.5	nd	0.2		0.56		0.3		0.3		0.3	
67	Chromium		ug/dscm		83.2		82.9		50.3		72.13		28.0		16.2		31.2		25.12		1.0		1.1		1.0	
68	Lead		ug/dscm	nd	52.8	nd	50.2	nd	46.6		24.93		47.1		20.6		31.5		33.08		2.8		3.1		3.0	
69	SVM		ug/dscm		27.1		25.8		23.9		25.63		47.2		22.1		31.6		33.65		3.2		3.4		3.4	
70	LVM		ug/dscm		191.5		186.1		111.7		163.11		178.1		391.0		315.2		294.75		1.0		1.1		1.1	
71																										
72	**463C13**	**Trial burn**			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3	
73																										
74	Feedstream Description				Liq Organic		Liq Organic		Liq Organic		Liq Organic		Aqueous		Aqueous		Aqueous		Aqueous		Natural gas		Natural gas		Natural gas	
75	Feed Rate		lb/hr		1683		1683		1683		1683.0		2891		2891		2891		2891.0							
76	Feed Rate		acfm																		5467.0		5704.0		5933.0	
77	Thermal Feedrate		MM Btu/hr		26.5		26.8		27.6		27.0															
78	Heating Value		Btu/lb		12187		12058		12435		12226.7		151		241		227		206.3							
79	Heating Value		Btu/scf																		1014.0		1014.0		1014.0	
80	Density		g/cc @ 75oF		0.961		0.961		0.961				1.09		1.09		1.09									
81	Viscosity		SSU @ 100oF		1.44		1.39		1.48				1.82		2.17		2.14									
82	Ash		%										8.46		8.23		8.35									
83	Chlorine		%		15.42		14.46		14.99				0.04		0.05		0.03									
84	Arsenic		mg/kg																							
85	Cadmium		mg/kg																							
86	Chromium		mg/kg																							
87	Lead		mg/kg																							
88																										
89	Stack Gas Flowrate		dscfm		6748		6563		6773		6714.25		6748		6563		6773		6714.25							
90	Oxygen		%		5.67		6.93		7.3		6.8		5.67		6.93		7.3		6.8							
91																										
92	Est Total Firing Rate		MMBtu/hr		20.51		20.29		20.93		20.58		0.44		0.70		0.66		0.60		5.5		5.8		6.0	
93																										
94	*Feedrate MTEC Calculations*																									
95	Ash		mg/dscm										8850.1		9644.9		9738.2		9411.06							
96	Chlorine		ug/dscm		9390689.1		9865114.0		10177246.9		9811016.67		41844.4		58596.0		34987.6		45142.64							
97	Arsenic		ug/dscm																							
98	Cadmium		ug/dscm																							
99	Chromium		ug/dscm																							
100	Lead		ug/dscm																							
101	SVM		ug/dscm																							
102	LVM		ug/dscm																							

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY
61	Est Total Firing Rate																								
62																									
63	*Feedrate MTEC Calculations*																								
64	Ash																			3268.1		3373.5		3200.7	
65	Arsenic	0.01									nd	0.1	nd	0.1	nd	0.2	nd	0.09		258.5		478.1		345.5	
66	Cadmium	0.34										471.9		559.3		516.7		515.98		473.1		561.9		517.8	
67	Chromium	1.04										1222.7		2951.3		1489.7		1887.87		1334.9		3051.4		1572.2	
68	Lead	2.97										162.8		206.6		158.0		175.81		239.2		255.4		215.9	
69	SVM	3.31										634.7		765.9		674.7		691.79		712.2		817.3		733.6	
70	LVM	1.05										1222.7		2951.3		1489.8		1887.93		1593.4		3529.5		1917.7	
71																									
72	**463C13**	Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg							
73																									
74	Feedstream Description	Natural gas		Spike		Spike		Spike		Spike		Total		Total		Total		Total							
75	Feed Rate			73.68		73.68		73.68		73.7															
76	Feed Rate	5701.3																							
77	Thermal Feedrate											26.5		26.8		27.6		27.0							
78	Heating Value																								
79	Heating Value	1014.0																							
80	Density																								
81	Viscosity																								
82	Ash																								
83	Chlorine																								
84	Arsenic			0.03		0.03		0.03																	
85	Cadmium			0.01		0.01		0.01																	
86	Chromium			0.4		0.4		0.4																	
87	Lead			1.85		1.85		1.85																	
88																									
89	Stack Gas Flowrate			6748		6563		6773		6714.25															
90	Oxygen			5.67		6.93		7.3		6.8															
91																									
92	Est Total Firing Rate	5.8										26.5		26.8		27.6		27.0							
93																									
94	*Feedrate MTEC Calculations*																								
95	Ash											8850.1		9644.9		9738.2		9411.1							
96	Chlorine											9432533.5		9923710.0		10212234.4		9856159.3							
97	Arsenic			799.8		896.0		891.7		862.52		799.8		896.0		891.7		862.5							
98	Cadmium			266.6		298.7		297.2		287.51		266.6		298.7		297.2		287.5							
99	Chromium			10664.5		11947.0		11889.2		11500.24		10664.5		11947.0		11889.2		11500.2							
100	Lead			49323.1		55254.9		54987.7		53188.59		49323.1		55254.9		54987.7		53188.6							
101	SVM			49589.7		55553.6		55285.0		53476.10		49589.7		55553.6		55285.0		53476.1							
102	LVM			11464.3		12843.0		12780.9		12362.75		11464.3		12843.0		12780.9		12362.8							

	B	AZ
61	Est Total Firing Rate	
62		
63	*Feedrate MTEC Calculations*	
64	Ash	3280.8
65	Arsenic	360.7
66	Cadmium	517.6
67	Chromium	1986.2
68	Lead	236.8
69	SVM	754.4
70	LVM	2346.8
71		
72	**463C13**	
73		
74	Feedstream Description	
75	Feed Rate	
76	Feed Rate	
77	Thermal Feedrate	
78	Heating Value	
79	Heating Value	
80	Density	
81	Viscosity	
82	Ash	
83	Chlorine	
84	Arsenic	
85	Cadmium	
86	Chromium	
87	Lead	
88		
89	Stack Gas Flowrate	
90	Oxygen	
91		
92	Est Total Firing Rate	
93		
94	*Feedrate MTEC Calculations*	
95	Ash	
96	Chlorine	
97	Arsenic	
98	Cadmium	
99	Chromium	
100	Lead	
101	SVM	
102	LVM	

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
1	**Feedstream 2**																											
2																												
3																												
4	**463C1**			R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg
5																												
6	Feedstream			Organic						Aqueous						Fuel Oil						Total						
7	Feedrate	lb/hr		2700		2580		2580																				
8	Feedrate	gpm								14		14		14		0.8		0.5		0.5								
9	Heating value	Btu/lb		10950		10270		10480		1380		1150		1190		19330		19280		19240								
10	Density	lb/gal								8		8		8		8		8		8								
11	Ash	wt %		0.1		0.1		0.1		8.3		8		8		0.1		0.1		0.1								
12	Chlorine	ppmw		151000		152000		157000		41000		39000		39000		1000		1000		1000								
13																												
14	Gas flowrate			9474		9148		9282		9474		9148		9282		9474		9148		9282								
15	Oxygen			4.6		5.5		5.2		4.6		5.5		5.2		4.6		5.5		5.2								
16																												
17	Feedrate MTECs																											
18	Ash	mg/dscm		65.0		68.1		65.9		13437.4		14192.1		13721.7		9.3		6.3		6.1		13511.7		14266.6		13793.6		13857.3
19	Chlorine	ug/dscm		9822221		10352653		10338723		6637769		6918664		6689312		9251		6336		6126		16469240		17277652		17034161		16927018

	B	C	D	E	F	G
1	**Process Information**					
2						
3	**463C10**					
4						
5	Thermocouple	^{o}C		832	838	829
6	Pyrometer	^{o}C		844	829	821
7	Acid Scrubber	10^3 scfm		430	460	450
8	Liq/Gas Ratio	gal		13.6	14.1	13.9
9	Venturi DP	in H2O		40	38	37
10	Scrubber pH	pH		5.4	5.5	5.5
11						
12	**463C11**					
13						
14	Thermocouple	^{o}C		824	828	830
15	Acid Scrubber	10^3 scfm		495	495	490
16	Liq/Gas Ratio	gal		25.9	25.6	25.5
17	Venturi DP	in H2O		39	40	39
18	Scrubber pH	pH		5.95	5.95	6
19						
20	**463C12**					
21						
22	Comb Chamber Temp	^{o}C		950	954	954
23	Quench Outlet Temp	^{o}C		91	91	91
24	Quench Water Flowrate	gpm		46	48	48
25	Scrubber Water Flowrate	gpm		43	43	58
26	Venturi Inlet Water Flow	gpm		196	196	195
27	Venturi Pressure Drop	in H2O		51	51	49
28	Scrubber Recycle Flowrate	gpm		530	540	535
29	Scrbubber Alkali Flowrate	gpm		2	1.8	1.8
30	Scrubber Effluent Flowrate	gpm		69	90	88
31	Scrubber Effluent	pH		7	7	7
32						
33	**463C13**					
34						
35	Comb Chamber Temp	^{o}C		1052	1052	1054
36	Liq to Gas Ratio	gpm:Mscfm		25.3	25.4	25.4
37	SO2 Scrubber Recycle	gpm		454	457	459
38	SO2 Scrubber pH	pH		7	7	7
39	Venturi Pressure Drop	in. H2O		41	41	41